Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. (canceled)

17. (currently amended) An *in vitro* method [[of]] for directing a targeting vector to a ~~pre-selected~~ specific chromosomal location within a genome of a mouse embryonic stem (ES) cell, comprising: introducing into an ES cell ~~the cell~~ a targeting vector, wherein the targeting vector comprises a drug resistance gene under control of a ubiquitin promoter and homology arms directing the targeting vector to a specific chromosomal location, and wherein targeting to the specific chromosomal location is increased by at least two-fold over a PGK promoter-containing targeting vector having homology arms directing the PGK promoter-containing targeting vector to the same chromosomal location but having a drug resistance gene under control of a PGK promoter.

18. (previously presented) The method of claim 17, wherein the ubiquitin promoter is the ubiquitin C promoter.

19. (previously presented) The method of claim 18, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

20. (previously presented) The method of claim 17, wherein the drug resistance gene encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.

21. (currently amended) A targeting vector comprising a drug resistance gene under control of a ubiquitin promoter and homology arms directing the targeting vector to a ~~pre-selected~~ specific chromosomal location in a mouse ES cell, wherein the specific chromosomal direction directed by the homology arms is a chromosomal location where the targeting vector achieves at least a two-fold higher targeting than a PGK promoter-containing targeting vector having a drug resistance gene under control of a PGK promoter.

22. (previously presented) The targeting vector of claim 21, wherein the ubiquitin promoter is

the ubiquitin C promoter.

23. (previously presented) The targeting vector of claim 22, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

24. (previously presented) The targeting vector of claim 21, wherein the drug resistance gene encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.

25. (currently amended) An *in vitro* method of increasing targeting frequency in mouse embryonic stem (ES) cells, comprising introducing into a mouse ES cell a targeting vector, wherein the targeting vector comprises a drug resistance gene under control of a ubiquitin promoter, and homology arms directing the targeting vector to a ~~pre-selected~~ specific chromosomal location, wherein targeting frequency to the specific chromosomal location is increased at least two-fold higher than targeting frequency to the specific chromosomal location obtained using a method employing a PGK promoter-containing targeting vector having homology arms directing the PGK promoter-containing targeting vector to the specific chromosomal location but having a drug resistance gene under control of a PGK promoter.

26. (previously presented) The method of claim 25, wherein the ubiquitin promoter is the ubiquitin C promoter.

27. (previously presented) The method of claim 26, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

28. (previously presented) The method of claim 25, wherein the drug resistance gene encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.

29. (currently amended) An *in vitro* method of increasing the number of mouse embryonic stem (ES) cells correctly targeted with a targeting vector, comprising introducing into a mouse ES cell a targeting vector, wherein the targeting vector comprises a drug resistance gene under control of a ubiquitin promoter, and homology arms directing the targeting vector to a ~~pre-selected~~ specific chromosomal location, wherein at least a two-fold higher number of mouse ES cells are correctly targeted than obtained by a method employing a PGK promoter-containing targeting

vector having homology arms directing the PGK promoter-containing targeting vector to the same specific chromosomal location but having a drug resistance gene under control of a PGK promoter.

30. (previously presented) The method of claim 29, wherein the ubiquitin promoter is the ubiquitin C promoter.

31. (previously presented) The method of claim 30, wherein the ubiquitin promoter is a human, mouse, rat, or bacterial ubiquitin promoter.

32. (previously presented) The method of claim 29, wherein the drug resistance gene encodes one of neomycin phosphotransferase, hygromycin phosphotransferase, or puromycin acetyl transferase.